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硕士学位论文

产品类型对网购意愿的影响:

一个来自保加利亚调查数据的例子

**The effect of product type on online shopping attitude:  
Evidence from survey data in Bulgaria**

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## 摘要

本文利用自填式调查问卷调查获取的数据，研究了消费者特征、个人感知价值和产品介入度对于特定类型产品消费者网购意愿的影响。我们选取了两种搜索型产品和两种体验型产品来研究不同产品类型对消费者网购意愿的影响。通过构建部分约束的广义有序 Logistic 模型（GOLM），本文得出消费者对不同类型产品的网购意愿不同。此外，本文还发现个人感知价值以及产品介入度是解释消费者网购意愿最有力的两个因素。

**关键词：**消费者特征; 个人感知价值; 产品类型; 网购意愿

## Abstract

Using data from self-administrated survey, this study is examining the effect of consumer characteristics, personal perceived values and product involvement on consumers` attitude towards adoption of Internet shopping for certain product types. Two “search” and two “experience” products were selected to investigate the influence of the product category on consumer acceptance of online shopping. By applying partially constrained generalized ordered logistic model (GOLM), this research demonstrates that the determinants of online shopping acceptance do differ among product types. In addition this study concludes that personal perceived values and product involvement are the most influential factors in explaining the attitude towards online shopping.

**Key words:** consumer characteristics; personal perceived values; product types; attitude towards online shopping

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# Chapter 1: Introduction

## 1.1 Background of the study

Ever since it was first introduced, the importance of the Internet did not cease to grow. Nowadays, the web is providing numerous services such as easy access to information, communication, banking, education, entertainment, online stores and many more. The development of the Internet naturally led to significant changes in the world of trade. The emergence of online shopping revolutionized both the domestic and cross border trade and business, offering abundance of products and information, lower prices, timesaving purchases and convenient delivery.

In the era of the new technology, millions of people are taking advantage of the benefits the Internet shopping is offering. Every year the number of people buying online is increasing. In 2015, the e-commerce was the fastest growing retail market in Europe with 53%<sup>1</sup> of the population of the European Union<sup>2</sup> having completed at least one purchase over the Internet. For comparison in 2007 this indicator was 30%. This trend is observed all over the old continent, with the difference that the online shopping is not as popular and widely adopted in the developing countries as it is in Western Europe. In Bulgaria, an Eastern European country, the e-retail is still in an early phase with relatively small portion of the population being involved actively. Never the less, in the period 2007-2015 the number of individuals that tried online shopping increased 6 times.

The development of the online shopping in Bulgaria is inevitably opening new business opportunities. In order to identify the potential online sales, it is crucial to understand for what type of products customers will readily accept to adopt online shopping. Thus the main objective of this study is to investigate the following two research questions: 1) for which products customers are more easily accepting Internet shopping as an alternative to the traditional brick-and-mortar shopping and 2) what factors are influencing individuals' attitude towards Internet shopping in the context of different product types.

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<sup>1</sup> % of the population that has ordered products online at least once in the past year; Source Eurostat: <http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>

<sup>2</sup> Including all of the 28 members of the EU



## 1.2 Contribution of this study

The acceptance of the Internet as a shopping channel has received a lot of attention throughout the years. Many authors have been focusing on the factors influencing consumers' attitude towards online shopping, however not that many have introduced the importance of the product type. Moreover this kind of research has never been done in the context of the Bulgarian e-retail market. Thus it is interesting to see what the attitude of the Bulgarian customers towards online purchasing of certain product types is. In order to implement that, a data set of 236 observations was gathered throughout a self-administrated survey.

Finally, this research is using partially constrained Generalized Ordered Logit Model (GOLM) as a tool to conduct the empirical investigation. This econometrical approach is often used in other research spheres, but so far only one study has applied it in the field of online shopping.

## 1.3 Structure of this paper

This research is divided into six chapters.

*Chapter 1* contains the introduction and contribution of this study.

*Chapter 2* presents an overview of the Bulgarian e-retail market. Here I discuss the tendencies and problems the E-commerce is facing in the country.

*Chapter 3* discusses previous studies and their findings.

*Chapter 4* contains the methodology of the paper. Here I discuss the conceptual framework used as a base for this study. I give full description of the variables analyzed, information about the process of product type selection as well as the validity and reliability of the study. This chapter also provides information about the way the questionnaire was created, the sampling strategy, target group and data collection.

*Chapter 5* introduces a description of the empirical model and the empirical results. Two approaches to analyze the data are presented in this chapter – descriptive statistics and regression analysis.

*Chapter 6* reports the conclusions and limitations of this study

## **Chapter 2: Overview of the Bulgarian e-retail market. Tendencies and problems**

### **2.1 Tendencies**

As it was already mentioned the Bulgarian e-retail market is still in its early stage of development. Online shopping is gaining popularity and the share of people actively purchasing from home is increasing every year. According to a research focused on the European e-commerce conducted by Civic consulting the main motive for choosing the virtual over the traditional shopping is the cheaper prices. Other important benefits pointed out by this report are: less time consuming, easy price comparison and time flexibility.

The annual report, regarding the ICT<sup>3</sup> usage by households and individuals, published by NSI Bulgaria, states that in 2015 18.5%<sup>4</sup> of the population of the country aged between 16 and 74 years have bought at least once goods or services over the Internet. In 2005 the same indicator was equal to only 1%. While big portion of the Bulgarian customers is still relying on the traditional offline shopping and face-to-face contact, in 2015 the share of people who have bought online has reached 82%<sup>5</sup> for United Kingdom, 77% for Denmark and Germany. The cultural and economic differences can be possible reasons for this gap.

In spite of that, the period between 2005 and 2015 in Bulgaria was marked by a steady growth of the popularity of the Internet shopping. Figure 1 is depicting the share of online shopping users out of the total population in Bulgaria for the period 2005 to 2015<sup>6</sup>, given in percentage.

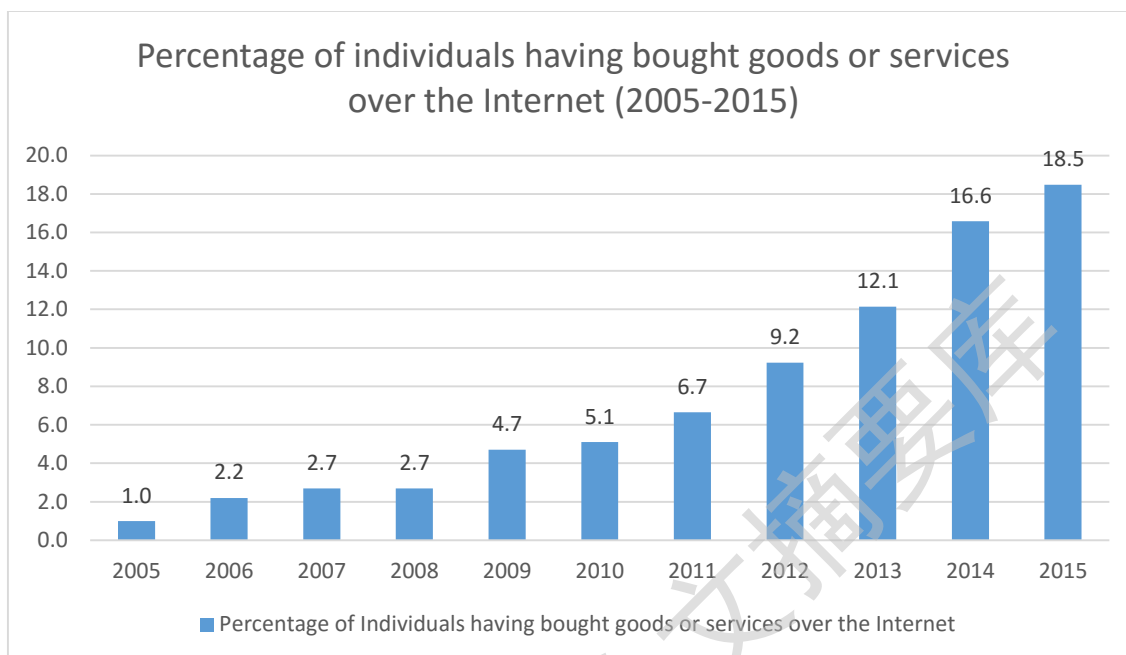
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<sup>3</sup> ICT – Internet and Communication Technology

<sup>4</sup> Source NSI Bulgaria: <http://nsi.bg/en/content/6122/individuals-having-orderedbought-goods-or-services-private-purposes-over-internet>

<sup>5</sup> Source Civic consulting: “Consumer market study on the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods”

<sup>6</sup> The percentage is calculated on the basis of total population of individuals aged between 16 and 74 years

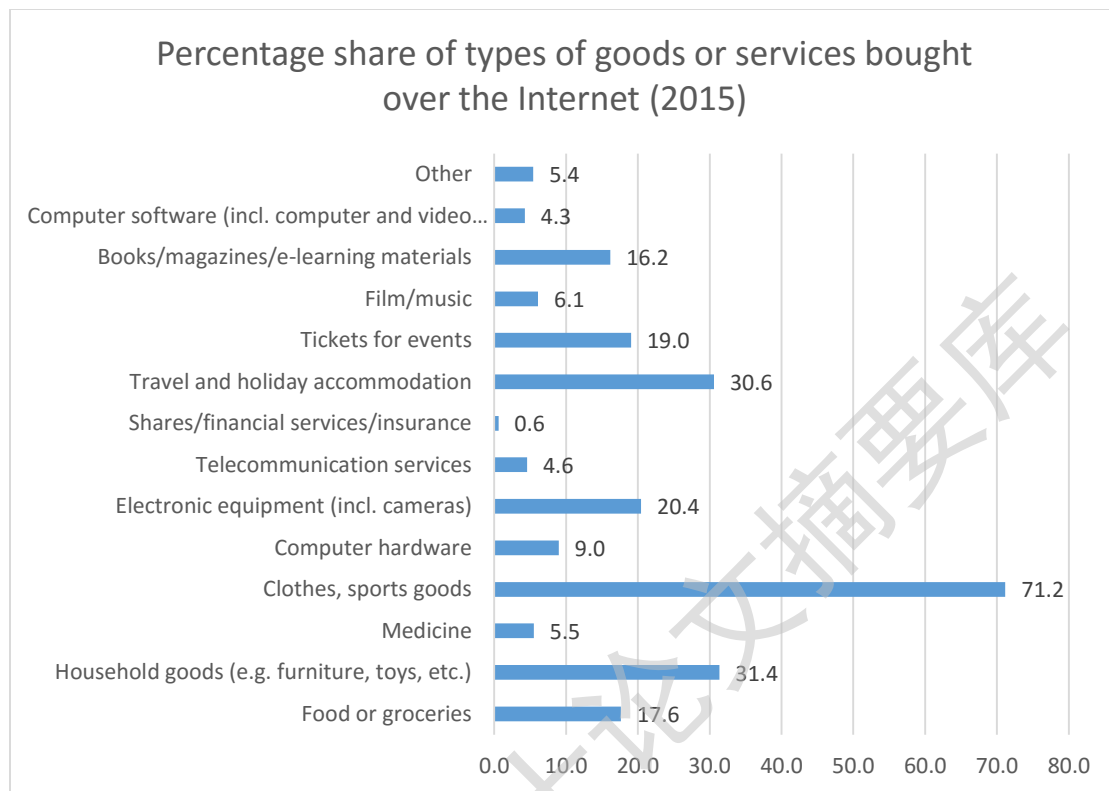


Source: NSI Bulgaria, 2015

**Figure 1: Percentage of individuals having bought goods or services over the Internet (2005-2015)**

In terms of types of products, for 2015 the Bulgarian customers were most often purchasing clothes and sports goods (71.2%), household goods (31.4%) and travel and hotel reservations (30.6%) over the Internet. This tendency is surprising, because determining the quality of items like clothes and sports goods require prior contact, which cannot be provided over the Internet. Thus those type of products are related to higher level of risk and consumers are expected to be more reluctant buying them online. Conversely, goods like books and electronic equipment, which do not require direct contact for the quality to be assessed, surprisingly appear to be not popular in the virtual shops. Figure 2 is presenting the share of each type of product out of the total number of goods and services bought over the Internet given in percentage<sup>7</sup>.

<sup>7</sup> Source NSI Bulgaria <http://nsi.bg/en/content/6124/type-orderedbought-goods-or-services-individuals-over-internet>



Source: NSI Bulgaria, 2015

**Figure 2: Percentage share of types of goods and services bought over the Internet in 2015**

## 2.2 Problems

Although the popularity of the Internet shopping is increasing, a lot of individuals are still skeptical and have rather negative attitude. The main reasons they stated for not willing to shop online are the following: “prefer to shop in person and see the products”, “have no need”, “lack of skills and knowledge”, “payment security and privacy concerns”<sup>8</sup>. Additionally problems such as slow speed of delivery, difficulties in finding information regarding guarantees and legal rights and technical malfunctioning of website during payment are discouraging individuals from buying goods and services over the Internet<sup>9</sup>.

<sup>8</sup> Source NSI Bulgaria <http://nsi.bg/en/content/6130/reasons-not-buyingordering-over-internet>

<sup>9</sup> Source: NSI Bulgaria <http://nsi.bg/en/content/6128/problems-encountered-when-buyingordering-goods-or-services-over-internet>

Apart from the reasons stated above, Tairov (2011) is explaining the impact of the socio-psychological characteristics of the Bulgarian customers on their willingness to shop online. According to him online shops are facing difficulties in gaining the trust of the customers regarding the quality of the products. Moreover, the fear of identity theft and bank information fraud is still being an obstacle for the further development of the e-retail business. Additionally, the privacy concerns combined with the negative attitude of the Bulgarian people towards being “in debt” are as well causing the low popularity of credit cards. While in Western Europe credit cards are the main tools for online purchases, in Bulgaria the method cash on delivery is still preferred. Finally, the economic situation in the country, relatively low average income, development and security of the Internet banking and Internet penetration are also factors that should not be neglected.

The existing trends and problems faced by the e-retail market in Bulgaria can give us better understanding of the attitude of the average customer towards online shopping.

## **Chapter 3: Literature review**

### **3.1 The concept of attitudes**

For many years the concept of attitudes has been broadly debated in the fields of economics, psychology and social behavior. Many different definitions of attitudinal behavior have been proposed. According to Katz (1960), attitude is a tendency to act or react in a favorable or unfavorable way towards an object or an action. For Allport (1935) it is a state of mind of an individual toward a value. Additionally, researchers agree on two points 1) that attitudes can vary in sign and intensity— from extremely positive to extremely negative and 2) that they are formed through personal experience and external influence (Solomon 2009).

In the context of online shopping, understanding attitudes is extremely valuable when examining and explaining consumers’ willingness to adopt new technology. First the Theory of reasoned actions (TRA) and later Technology Acceptance Model (TAM) explained the link between attitude and actual behavior when adopting new technology. Those models were widely employed in the existing literature as they are shedding light on the factors that influence consumers’ behavior in the process of adopting new information system. The attributes proposed by Davis, as predictors of attitude towards new technology, are perceived usefulness and perceived ease of use. Perceive usefulness is related to the consumer’s expectation that using a new

information technology could result in improved job performance and perceived ease of use is defined as the degree to which a person believes that using a particular system would be effortless (Davis 1989).

Apart from the widely-used TAM or its predecessor TRA, many researchers have developed extended models, adding more variables that affect consumers' attitude and thus provide fuller understanding of what factors determine the online shopping acceptance.

### **3.2. Factors determining attitude towards online shopping**

The concept of online shopping is relatively new research field. Throughout the last few decades, many researchers have made the attempt to explain the determinants of the attitude towards online shopping. Previous studies have implemented various approaches and have focused on different aspect of the online shopping acceptance. Thus the literature in this field is very diverse. Along with the factors integrated in TAM, different papers have examine additional determinants of online shopping attitude, such as consumers characteristics, perceived values, product involvement.

Consumer characteristics are common variables investigated by previous researchers in the field of Internet shopping. Demographic factors such as age, gender, education and income, however often yield controversial results. Sultan and Uddin (2011) focused their efforts on two research questions 1) what factors are influencing consumers' attitude towards online shopping and 2) who are the frequent online shopping users in terms of demography. Using data collected from self-designed survey conducted in Sweden, they concluded that there is a strong negative correlation between age and attitude, indicating that elder people are less likely to shop online. Opposing this finding, Osman et al. (2010) and later Zuroni and Goh (2012) found the effect of age on attitude towards Internet shopping to be statistically insignificant. Another finding, made by Sultan and Uddin, was a strong negative correlation between education level and online shopping attitude. According to their research users with higher education tend to have more negative attitude towards using the Internet as a shopping channel. This result was inconsistent with other studies that found the variable education to be statistically insignificant (Fong 2013; Osman et al. 2010). Moreover, researchers did not reach agreement on the effect of gender on the attitudinal behavior, as some (Fong 2013; Alreck and Settle 2002) reported insignificant correlation, while others (Rodgers and Harris 2003; Haque et al. 2007) found that men in general

have more positive attitude and are more often satisfied with the online shopping experience than women. Similar situation is observed with the variable income. On one hand, Osman et al. (2010) conducted correlation analysis of the demographic factors and found weak correlation between income and attitude towards online shopping. On the other hand, Zuroni and Goh (2012) and Kim et al. (2000) reported that individuals with higher disposable income are more likely to shop online. This might be related to the fact that they are more likely to possess computer, Internet access and higher education (Monuwe et al. 2004).

Apart from the demographic factors, many researchers examined the role of previous online shopping experience and its influence on consumers' attitude. People who have bought at least once over the Internet, most likely have gained knowledge that influenced their perception of online shopping and formed their belief and attitude (Jarvenpaa et al. 2000). Overall researchers came to agreement that prior experience, assessed by the users as positive, has significant impact on consumers' attitude (Haque et al. 2007; Fong 2013).

Great number of researches are focusing on customers' perceived values and more particularly perceived risk and perceived benefits. The acceptance of new technology is inevitably linked to potential risks. Consumers are often driven back from the fear of their personal and financial information being compromised (Kumar 2013). Despite that the popularity of the Internet as a shopping channel is increasing. The reason for that, as stated by Kim et al. (2008), is the effect of perceived benefits. They defined perceived benefits as a consumer's belief about the extent to which he will become better off from the online purchase of a certain product. The benefits of using Internet to buy goods and services are related to the ability to save time, compare easily prices, find easily information, favorable prices and bigger diversity of goods (Childers et al. 2001). Doolin et al. (2005) investigated the effect of perceived risk and benefits on online purchasing behavior. Using a survey on 700 New Zealand Internet users they found that both of the factors have significant impact on the formation of the attitude. Other researches (Shwu – Ing 2003, Fong 2013, Hemamalini 2013) confirm this result, reporting positive effect of perceived benefits on online shopping attitude and expectedly - negative impact of perceived risk.

In the existing literature the concept of product involvement has often been neglected. It was principally introduced by Zaichkowsky (1985) and defined as a person's perceived relevance of the object based on inherent needs, values, and interests. Higher level of product involvement

are associated with more positive attitude towards online purchasing (Keisidou and et al. 2011, Hemamalini 2013). Overall researchers have agreed on the positive effect of product type on attitudinal behavior.

### **3.3. Attitude towards online shopping in the context of product types**

In the context of product type, however not that many researches have been done. Girard et al. (2003) analyzed the relation between demographic factors, shopping preferences, perceived convenience and certain product types, using regional sample from southeast USA. They chose 8 types of products – two of each of the following groups: search, experience -1 and experience - 2 as well as credence. This study found that the relation between shopping preferences and perceived beliefs significantly differ by product type. Another interesting conclusion drawn from that study is that men are more likely to buy search type of goods over the Internet compared to women who tend to purchase experience goods more often. Although the paper provides valuable understanding of the effect of product type on attitudinal behavior, it fails to access the impact of perceived risk, which was found to be one of the key determinant of attitude towards online shopping.

Lian and Lin (2008) also studied the attitude towards online shopping in the context of product category. They draw a sample of 216 Taiwanese students. Moreover, they proposed a model that consists of 5 categories: PIIT<sup>10</sup>, self-efficacy, perceived security, privacy concerns and product involvement and investigated the effect of four different products– Books, Online magazines, computer games and TV game systems. The multiple regression analysis concluded that individual's attitude in fact vary by product type. Product involvement and perceived web security were found to be key determinants of the attitude towards buying online.

Based on Lian and Lin's research, Keisidou and et al. (2011) examined the effect of product type on customers' acceptance of Internet as a channel for shopping, using data focusing on Greece. Four product types were chosen to capture the specific of tangible and intangible, low and high cost products – Books, TV sets, E-tickets, Subscriptions. Consistent with the previous findings, this research proved that there is difference in consumers' attitude towards online shopping of each of these product types. The significance and strength of all the categories mentioned above is

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<sup>10</sup> PIT - Personal innovativeness of information technology



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